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Applicant(s): Burk et al. Docket: 1321-6 PCT US

Appln. No.: 10/583,206

Filing Date: June 15, 2006 Dated: August 9, 2006


For: ARYLALKYLSILYLS USED AS FLAME RETARDANT ADDITIVES

Mail Stop PCT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450LETTER

Sir:

Enclosed is the Written Opinion issued by the International Searching
Authority in the priority PCT application.

Respectfully submitted,


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CERTIFICATE OF FACSIMILE

I hereby certify that this paper is being facsimile transmitted to the
Patent and Trademark Office (1-571-273-8300) on the date shown below.

Dated: August 9, 2006
George M. Kaplan

DILWORTH BARRESE
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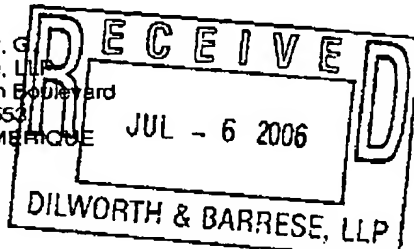
From the INTERNATIONAL BUREAU

PCT

NOTIFICATION CONCERNING
TRANSMITTAL OF COPY OF INTERNATIONAL
PRELIMINARY REPORT ON PATENTABILITY
(CHAPTER I OF THE PATENT COOPERATION
TREATY)

(PCT Rule 44bis.1(e))

To:

DILWORTH, Peter, G.
Dilworth & Barrese, LLP
333 Earle Ovington Boulevard
Uniondale, NY 11553
ETATS-UNIS D'AMERIQUE

Date of mailing (day/month/year) 29 June 2006 (29.06.2006)		
Applicant's or agent's file reference ACA6325(1321-6PCT)		
IMPORTANT NOTICE		
International application No. PCT/US2004/042087	International filing date (day/month/year) 15 December 2004 (15.12.2004)	Priority date (day/month/year) 19 December 2003 (19.12.2003)
Applicant SUPRESTA LLC et al		

The International Bureau transmits herewith a copy of the international preliminary report on patentability (Chapter I of the Patent Cooperation Treaty)

The International Bureau of WIPO 44, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 740 14 35	Authorized officer Beate Giffo-Schmitt Facsimile No. +41 22 338 87 20
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Form PCT/IB/326 (January 2004)

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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference ACA6325(1321-6PCT)	FOR FURTHER ACTION See item 4 below	
International application No. PCT/US2004/042087	International filing date (<i>day/month/year</i>) 15 December 2004 (15.12.2004)	Priority date (<i>day/month/year</i>) 19 December 2003 (19.12.2003)
International Patent Classification (8th edition unless older edition indicated) See relevant Information in Form PCT/ISA/237		
Applicant SUPRESTA LLC		

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).

2. This REPORT consists of a total of 7 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Box No. I | Basis of the report |
| <input type="checkbox"/> Box No. II | Priority |
| <input checked="" type="checkbox"/> Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> Box No. VI | Certain documents cited |
| <input type="checkbox"/> Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> Box No. VIII | Certain observations on the international application |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis.2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 740 14 35 Form PCT/IB/373 (January 2004)	Date of issuance of this report 20 June 2006 (20.06.2006)
	Authorized officer Beate Giffo-Schmitt Telephone No. +41 22 338 87 20

PATENT COOPERATION TREATY

REC'D 07 APR 2005

From the
INTERNATIONAL SEARCHING AUTHORITY

WIPO

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To:

see form PCT/ISA/220

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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)Applicant's or agent's file reference
see form PCT/ISA/220FOR FURTHER ACTION
See paragraph 2 belowInternational application No.
PCT/US2004/042087International filing date (day/month/year)
15.12.2004Priority date (day/month/year)
19.12.2003International Patent Classification (IPC) or both national classification and IPC
C08K5/5419, C08L69/00, C08L67/00Applicant
SUPRESTA LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☒ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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Authorized Officer

Telephone No. +49 89 2399-



**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**International application No.
PCT/US2004/042087**Box No. I Basis of the opinion**

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**International application No.
PCT/US2004/042087**Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial
applicability**

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

- ☐ the entire international application,
☒ claims Nos. 1-12

because:

- ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):
- ☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):
- ☒ the claims, or said claims Nos. 1-12 are so inadequately supported by the description that no meaningful opinion could be formed.
- ☒ no international search report has been established for the whole application or for said claims Nos. 1-12
- ☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:
- | | |
|----------------------------|--|
| the written form | <input type="checkbox"/> has not been furnished |
| | <input type="checkbox"/> does not comply with the standard |
| the computer readable form | <input type="checkbox"/> has not been furnished |
| | <input type="checkbox"/> does not comply with the standard |
- ☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-bis of the Administrative Instructions.
- ☐ See separate sheet for further details

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**International application No.
PCT/US2004/042087

Box No. V Reasoned statement under Rule 43b/s.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	13-37
	No: Claims	
Inventive step (IS)	Yes: Claims	13-37
	No: Claims	
Industrial applicability (IA)	Yes: Claims	13-37
	No: Claims	

2. Citations and explanations

see separate sheet

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/US2004/042087**Concerning Paragraph III**

The subject matter of claims 1-12 has not been searched and is not to be examined hereafter. Besides, the IPEA agrees with the objection raised by the ISA that the subject matter of claims 1-12 lacks support/disclosure according to Art. 5-6 PCT.

Concerning Paragraph V**1. Relevant document:**

D1: US 2003/060548 A1

D2: EP-A-0 497 004

D3: US 2003/199631 A1

D4: DE 28 32 342 A1

D5: DATABASE CA [Online] CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; 28 February 1978 (1978-02-28), LASOCKI, ZYGMUNT ET AL: "Thermosetting and thermoplastic silicone resins"

2. Novelty: Art. 33(2) PCT

2.1 a) D4 discloses aromatic polycarbonate compositions comprising aryloxysiloxane oligomers which encompass compounds according to present claim 13. Arylalkylsilyl compounds are, however, not specifically disclosed and may only be described from D4 after performing at least two selections, e.g. R1= Alkyl and R2= Aryl.

b) None of D1-D3 discloses the claimed arylalkylsilyl oligomers according to claims 13-36.

c) The subject matter of claims 1-36 is, thus, novel D1-D4.

2.2 None of the cited documents discloses a method for making the oligomers according to claim 13 from alkyltrichlorosilane and diphenols according to claim 37. D5, which uses the same reactants, discloses a different preparation method leading to different compounds.

3. Inventive step: Art. 33(3) PCT

3.1 D4 teaches the use of the oligomers as plastifiers and not as flame retardant and is disregarded for the assessment of the inventive step.

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/US2004/042087

3.2 Starting from any of D1-D3 as closest prior art, the skilled person would have found no hint to provide flame retardant compositions substantially free of haloorganic compounds and phosphate flame retardant by using the oligomers as claimed. The subject matter of claims 13-36 is inventive.

3.3 None of the cited documents renders the subject matter of the method claim 37 obvious.

4. The subject matter of claims 1-37 is industrially applicable.